UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,080	02/04/2002	Manish Mangal	1844	4074

7590 04/27/2004

Steven J. Funk
Sprint Corporation
8140 Ward Parkway
Kansas City, MO 64114

EXAMINER	
MOORE, JAMES K	

ART UNIT	PAPER NUMBER
2686	

DATE MAILED: 04/27/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/067,080	MANGAL ET AL.	
	Examiner	Art Unit	
	James K Moore	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 August 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11,12*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 18-21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinnavy (U.S. Patent Application Pub. No. 2003/0114156) in view of Harris et al. (U.S. Patent Application Pub. No. 2002/0191583) and Rosen et al. (U.S. Patent Application Pub. No. 2003/0008657).

Regarding claim 18, Kinnavy discloses a method of reducing call setup latency in a mobile station. The method comprises, responsive to a trigger event which may be a user pressing a key or a change in an operating characteristic of the mobile station, the mobile station switching from operation at a first paging slot cycle index to operation at a second paging slot cycle index. See paragraphs 3 and 11. The mobile station may check a paging channel for pages more often when operating at the second paging slot cycle index than when operating at the first paging slot cycle index. See paragraph 5. The method also comprises sending, by the mobile station, a signaling message via an air interface to a base station controller, directing the base station controller to switch to

operating at the second paging slot cycle index as well, whereby both the base station and the mobile station then operate at the second paging slot cycle index. See paragraphs 1 and 14.

Kinnavy does not disclose: (1) that the trigger event is a request, received into the mobile station from the user, to change a mode of operation of the mobile station from a normal mode to a PTT mode, (2) that the mobile station receives and buffers a speech signal provided by the user, (3) that the mobile station sets up an initiating communication leg with a PTT server, or (4) that, responsive to establishment of the initiating communication leg with the PTT server, the mobile station sends the initiating user's buffered speech signal along to the PTT server for transmission in turn to at least one other station.

Harris discloses a method for assigning slot cycles in a communication system that comprises switching a mobile station to a shorter slot cycle index when the mobile station changes its mode of operation from a normal mode to a PTT, or dispatch, mode. See paragraphs 4, 29 and 31. Harris teaches that shorter slot cycles are needed for mobile stations operating in a dispatch mode because a dispatch service requires a very fast connection being made with a called party. See paragraph 6. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kinnavy with Harris, such that the trigger event may be a request, received into the mobile station from the user, to change a mode of operation of the mobile station from a normal mode to a PTT mode, in order to provide a mobile station operating in a PTT mode with the fast connection with a called party that it requires.

Rosen discloses a method for operating a mobile station in a PTT mode. Rosen discloses that, in order to reduce call latency, the mobile station receives and buffers a speech signal provided by a user, sets up an initiating communication leg with a PTT server (communications manager CM 110), and responsive to establishment of the initiating communication leg with the PTT server, sends the initiating user's buffered speech signal to the PTT server for transmission to another station. See Figure 2 and paragraphs 29 and 86-89. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the combination of Kinnavy and Harris with Rosen, such that the mobile station receives and buffers a speech signal provided by the user, sets up an initiating communication leg with a PTT server, and responsive to establishment of the initiating communication leg with the PTT server, sends the initiating user's buffered speech signal along to the PTT server for transmission in turn to at least one other station, in order to reduce PTT call latency.

Regarding claim 19, Kinnavy in view of Harris and Rosen teach all of the limitations of claim 18, and Kinnavy also discloses that the first paging slot cycle index may be slot cycle index 2 and the second paging slot cycle may be slot cycle index 0. See paragraph 11.

Regarding claim 20, Kinnavy discloses a mobile station (160) comprising a processor (344), data storage (memory 348), a wireless communication interface comprising an antenna that sends and receives signals over a radio frequency air interface in communication with a base station (140), a user interface comprising a microphone for receiving analog speech signals from a user, and a display for

presenting information to a user. The mobile station inherently comprises a speaker for playing out analog speech signals to the user. See Figure 3 and paragraphs 16 and 17.

The mobile station also comprises machine language instructions stored in the data storage and executable by the processor to carry out functions comprising, responsive to a trigger event which may be a user pressing a key or a change in an operating characteristic of the mobile station, switching from operation at a first paging slot cycle index to operation at a second paging slot cycle index. See paragraphs 3, 11 and 16. The mobile station may check a paging channel for pages more often when operating at the second paging slot cycle index than when operating at the first paging slot cycle index. See paragraph 5. The functions also comprise sending a signaling message via an air interface to a base station controller, directing the base station controller to switch to operating at the second paging slot cycle index as well. See paragraphs 1 and 14.

Kinnavy does not disclose: (1) that the user interface comprises a mechanism engageable by a user in order to initiate PTT communication, (2) that the trigger event is a request, received into the mobile station from the user, to change a mode of operation of the mobile station from a normal mode to a PTT mode, (3) that the mobile station receives and buffers a speech signal provided by the user, (4) that the mobile station sets up an initiating communication leg with a PTT server, or (5) that, responsive to establishment of the initiating communication leg with the PTT server, the mobile station sends the initiating user's buffered speech signal along to the PTT server for transmission in turn to at least one other station.

Harris discloses a mobile station having a PTT operation mode comprising a mechanism (a PTT button) engageable by a user in order to initiate PTT communication. The mobile station switches to a shorter slot cycle index when it changes its mode of operation from a normal mode to a PTT, or dispatch, mode. See paragraphs 4, 29 and 31. Harris teaches that the PTT mechanism enables a user to communicate with a group of people instantly just by depressing a button, and that shorter slot cycles are needed for mobile stations operating in a dispatch mode because a dispatch service requires a very fast connection being made with a called party. See paragraphs 4 and 6. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kinnavy with Harris, such that the user interface comprises a mechanism engageable by a user in order to initiate PTT communication and the trigger event may be a request, received into the mobile station from the user, to change a mode of operation of the mobile station from a normal mode to a PTT mode, in order to provide the user of the mobile station the ability to communicate with a group of people instantly by operating in a PTT mode, and when operating in a PTT mode, providing the fast connection with a called party that the mode requires.

Rosen discloses a method for operating a mobile station in a PTT mode. Rosen discloses that, in order to reduce call latency, the mobile station receives and buffers a speech signal provided by a user, sets up an initiating communication leg with a PTT server, and responsive to establishment of the initiating communication leg with the PTT server, sends the initiating user's buffered speech signal to the PTT server for

transmission to another station. See Figure 2 and paragraphs 29 and 86-89. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the combination of Kinnavy and Harris with Rosen, such that the mobile station receives and buffers a speech signal provided by the user, sets up an initiating communication leg with a PTT server, and responsive to establishment of the initiating communication leg with the PTT server, sends the initiating user's buffered speech signal along to the PTT server for transmission in turn to at least one other station, in order to reduce PTT call latency.

Regarding claim 21, Kinnavy in view of Harris and Rosen teach all of the limitations of claim 20, and Kinnavy also discloses that the first paging slot cycle index may be slot cycle index 2, and the second paging slot cycle index may be slot cycle index 0. See paragraph 11.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Moore, whose telephone number is (703) 308-6042. The examiner can normally be reached on Monday-Friday from 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold, can be reached at (703) 305-4379.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Ken Moore

JKM

4/22/04

Marsha D Banks-Harold

MARSHA D. BANKS-HAROLD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600